

REMARKS/ARGUMENTS

Reconsideration and continued examination of the above-identified application are respectfully requested.

New claim 95 has been added, which is dependent on claim 2. Support for this amendment can be found at page 6, lines 5-8, of the present application. Accordingly, no questions of new matter should arise and entry of this amendment is respectfully requested.

In the Final Office Action dated July 14, 2005, the Examiner has maintained each of the rejections for reasons previously given in prior Office Actions.

In the Final Office Action, under the section entitled "Response to Arguments," the Examiner provided additional comments, and the applicants respond to these arguments below.

In particular, at the bottom of page 5 of the Final Office Action, the Examiner asserts that the definition of "substantially uniform average grain size" is not provided in the specification of the instant invention. The applicants respectfully disagree, and the applicants believe the Examiner is incorrect with respect to this position. In particular, the attention of the Examiner is specifically directed to page 5, line 21, to page 6, line 3, of the present application. Contrary to the Examiner's position and contrary to the Examiner's reasoning used in the rejections, this term is specifically defined, and the present application clearly states that the term "substantially uniform grain size" is measured according to a particular ASTM standard and further indicates that substantially uniform grain size means that the grain size does not deviate by more than +/- 100 microns from the average ASTM grain size determined across the entire cross-section of the extruded billet. Accordingly, the Examiner's reasoning and position with respect to the rejections is not correct and, for this reason alone, the rejections should be withdrawn since the arguments previously set forth in considerable detail in the Amendment filed April 22, 2005 clearly address

this parameter and the lack of this teaching or suggestion of the parameter in the cited art. These arguments are provided again starting at page 15.

Furthermore, with respect to the Examiner's comments that the claims are product-by-process claims and, therefore, the subsequent processing set forth in the Clark reference would not be relevant, the Examiner is not entirely correct. The applicants believe that it is quite important for the Examiner to realize that claims 18-35 and 53-94 are process claims that recite process steps and, due to their dependency on other claims, clearly recite properties achieved by the process. Therefore, the Examiner's comments that the claims are product-by-process claims is not entirely correct and, clearly, the Examiner needs to further consider these arguments in view of the process claims. Further, the arguments provided in the Amendment filed April 22, 2005 are further relevant to the product claims, such as claims 2-17, for the reasons provided below.

With respect to the Examiner's comments that Clark and WO '650 relate to high purity sputtering targets and therefore it would be obvious to combine their teachings, the applicants respectfully disagree. It is respectfully submitted that none of the claims present in the application are claiming purity by themselves. Each of the pending claims recite purity along with another characteristic, such as grain size. The Examiner does not take into account that when one works with higher purity tantalum, it is far more difficult to achieve a lower grain size, since impurities present in tantalum act as grain refiners. In addition, when higher purity tantalum metal is used, the effects on other properties can be quite different. Thus, one working with higher purity metals faces problems not faced with lower purity tantalum metals. This is further shown, for instance, in U.S. Patent No. 3,497,402 where small levels of impurities, like yttrium, can greatly affect grain size. In the examples set forth in U.S. Patent No. 3,497,402,

when 60 ppm yttrium was present in the tantalum metal and all other factors remain the same, grain size went from 350 microns (i.e., ASTM of 0) to about 40 microns (i.e., ASTM of 6.8) when yttrium was added. Clearly, impurities have an effect on the various properties of tantalum. In addition, the Examiner's attention is directed to the article entitled, "Factors Affecting the Mechanical Properties and Texture of Tantalum," by Michaluk, submitted with the Information Disclosure Statement, wherein the effect of impurities on tantalum is also seen with respect to grain size and other mechanical properties.

The Michaluk article further shows the effects of impurities on metal. For instance, this article by Michaluk shows that when tungsten is present with tantalum in small amounts, the deformation and recrystallization textures exhibited in the metal are not the same as for tantalum without the impurity present. See, for instance, page 210. Accordingly, purity, when taken with other characteristics in the metal, such as grain size and/or texture, cannot be trivialized and clearly the cited art relied upon by the Examiner does not address the present invention's achievements with respect to using certain high purity tantalum metals and achieving particular grain sizes.

Finally, with respect to the Examiner's argument that one skilled in the art would consider ingot-derived tantalum or niobium to be the same as powder metallurgy when it comes to applying extrusion techniques, the Examiner provides no support to show this conclusion. Clearly, Friedman et al. does not indicate that powder metallurgy technology is the same as ingot-derived technology. The applicants respectfully disagree with the Examiner's position since grain size would be different for an ingot-derived material compared to a powder metallurgy material. Certainly, Friedman et al. does not teach or suggest that powder metallurgy products of tantalum or niobium are equivalent with respect to properties when compared to

ingot-derived tantalum or niobium material. Certainly, none of the references relied upon by the Examiner would support this position. As apparently appreciated by the Examiner, the Examiner's combination of Friedman et al. with Clark and other references which relate to ingot-derived material clearly would be difficult since Clark provides a specific study of certain properties which would be relevant to ingot-derived material, but not necessarily applicable to powder metallurgy material. Thus, the Examiner is combining technologies which are not necessarily combinable, especially when considering particular properties are recited in the pending claims that are not addressed in Friedman et al.

The previous arguments set forth in the Amendment filed April 22, 2005 are further repeated herein below in order to ensure the Examiner's consideration of these arguments especially in view of the comments set forth above.

Rejection of Claims 2 - 4, 16, 17, 71 - 73, and 89 - 90 under 35 U.S.C. §103(a) over Clark et al. and WO 87/07650 (WO '650)

Claims 2 - 4, 16 - 17, 71 - 73, and 89 - 90 were rejected under 35 U.S.C. §103(a) as being obvious over Clark et al., "Influence of Transverse Rolling on the Microstructural and Textural Development of Pure Tantalum," in view of WO 87/07650 (WO '650). The Examiner referred to the previous final Office Action wherein the Examiner alleged that Clark et al. teaches an extruded tantalum billet having a substantially uniform grain size. The Examiner acknowledged that Clark et al. does not explicitly teach the claimed purity, the metal in the article, the sputtering target or resistive film layer, but alleged that WO '650 teaches the purity claimed in claims 2, 7, and 12 and the metal in a sputtering target and a resistive film layer. The Examiner further alleged that WO '650 teaches that the use of highly pure tantalum in the formation of the

target results in a high-quality oxide insulating film and metallic tantalum electrode film. The Examiner took the position that it would have been obvious to use the high purity tantalum material of WO '650 in the process of Clark et al. in order to provide Clark et al. with the desirable result of providing a material that, when formed into a tantalum sputtering target as taught in WO '650, yields a high quality oxide insulating film and metallic tantalum electrode film. In the present Office Action, with respect to amended claim 2, the Examiner alleged that Clark et al. teaches that the tantalum ingot is extruded and annealed. The Examiner takes the position that since annealing is not a thermomechanical process, the extruded and annealed tantalum of Clark et al. meets the limitation of having "a substantially uniform average grain size after extrusion and before any further thermomechanical processing."

For the following reasons, this rejection is respectfully traversed as it may be applied to the amended claims presented herein.

In the present invention, as described on page 10, lines 6 - 9 of the present specification, a substantially uniform grain size of a billet is achieved through the extrusion processing by itself and before any further processing. As discussed in Applicant's previous response, Clark et al. only provides grain information for an extruded tantalum part after it has been cold rolled and annealed. The subsequent steps set forth in Clark et al., including the cold rolling and annealing, would greatly affect the properties of the rolling bar and in fact, the publication is specifically directed to determining the effect of the process of various types of rolling on microstructure and texture. There is no information provided in Clark et al. with respect to grain size or other properties of a tantalum billet after it has been extruded and before any subsequent processing. Thus, the Examiner's assertion that Clark et al. shows a tantalum ingot that is extruded and annealed and that annealing is not a thermomechanical process is not understood. The Examiner

further asserts that Clark et al. does not teach that the grain size of the extruded and annealed tantalum is not substantially uniform. Again, this statement is not understood. The Examiner cannot refer to a reference and assert that since Clark et al. does not mention that the extruded tantalum does not have substantial uniformity with respect to grain size, this must mean that it does have substantial uniformity. This type of negative teaching in the absence of a specific teaching is not acceptable under PTO guidelines. A reference must be relied on for what it clearly teaches or suggests. In the absence of any teaching or suggestion, the Examiner cannot speculate or assert that in the absence of a specific teaching, the reference must teach the opposite. The Examiner is respectfully requested to provide PTO guidelines that would support such an interpretation of cited art in a rejection. Clearly, and the Examiner does not seem to dispute this point, Clark et al. does not literally teach or literally suggest that the extruded tantalum, prior to any thermomechanical processing, has a substantially uniform grain size in the extruded tantalum. Furthermore, the Examiner does not seem to dispute that Clark et al. does not literally teach or literally suggest only extruding tantalum and determining grain size. It is clear from process 3 of Clark et al., which is the only process that shows extrusion, that the tantalum is extruded, annealed, and then subjected to rolling and cross rolling. It appears the Examiner does not dispute this point either. Thus, the Examiner's argument that Clark et al. somehow teaches or somehow suggests that Clark et al. achieves uniform grain size after only extruding and prior to any thermomechanical processing, such as rolling, is not understood. Clearly, rolling and cross rolling will clearly be a thermomechanical step and this is clearly shown prior to any measurement of grain size by Clark et al. It is quite clear that in each of the processes done by Clark et al., rolling and cross rolling were done thereby showing the significant importance of this subsequent thermomechanical processing by Clark et al. Moreover, even after the processes

of cold rolling and annealing in Clark et al., it is not seen where Clark et al. teaches or suggests a substantially uniform grain size, even in the passages cited by the Examiner as allegedly containing this teaching. In particular, the studies of Clark et al. are primarily related to the texture of the tantalum, which is related to crystal structure orientation, or to grain size itself and not to uniformity of grain size. Moreover, Clark et al. does not contain any teaching that a substantially uniform grain size is a desirable trait. Accordingly, Clark et al. does not teach or suggest an extruded tantalum billet that has the property of having a substantially uniform grain size after extrusion and before any further processing, as required by amended independent claim 2.

WO '650 (abstract) was applied by the Examiner as allegedly teaching a purity of tantalum metal and the use of the tantalum metal in a sputtering target and a resistive film layer. WO '650 contains no teaching or suggestion with respect to grain size uniformity. Accordingly, the combination of Clark et al. and WO '650 does not teach or suggest an extruded tantalum billet that has the property of having a substantially uniform grain size after extrusion and before any thermomechanical processing, as required by amended independent claim 2. Moreover, the Examiner has not provided any proper motivation for making this combination. In particular, the Examiner has not provided any motivation for using tantalum that has a purity of at least about 99.99% in the method of Clark et al. Clark et al. does not specify any particular end use for tantalum that has undergone its rolling and recrystallization processes, but compares its processes and results to similar studies that are carried out with deep-drawing steel (page 2183, first column, first full paragraph and page 2190, second column, first full paragraph). Accordingly, it is reasonable to conclude that Clark et al. contemplates similar uses for its tantalum to the uses of deep-drawing steel, such as mechanical or structural uses, and that it is on this basis that the

properties such as texture are being studied. There is nothing in Clark et al. that would teach or suggest any advantage of a tantalum having a purity greater than the standard commercial-grade high-purity tantalum used in the studies of Clark et al. Therefore, there is no motivation to use tantalum that has a purity of at least about 99.99% in the method of Clark et al. Also, it is far more difficult to obtain uniformity with high purity metals since the impurities in metal act as grain refiners. Clark et al. did not face this problem; the present invention, however, does. Moreover, there is no motivation to subject the material of WO '650 to the processes described in Clark et al., since there is no teaching or suggestion whatsoever that the process of extruding tantalum accomplishes any result, with respect to the properties of the tantalum, that has any relevance to the usefulness of the tantalum as a sputtering target. In particular, with respect to the Examiner's comments at page 5 of the present Office Action that there is motivation to combine WO '650 with Clark et al. by WO '650 in its abstract (i.e. to form a tantalum sputtering target yielding a high quality insulating film and metallic Ta electrode film), there is absolutely nothing in Clark et al. that makes any connection whatsoever to the physical properties obtained in its studies with respect to rolled plates and any physical property that would be relevant to obtaining high quality films by sputtering. In other words, a person skilled in the art seeking to make high quality Ta₂O₅ insulating film and metallic Ta electrode film by sputtering would not find any relevant teachings in Clark et al. and would not find motivation to combine the teachings of WO '650 with the teachings of Clark et al.

Accordingly, claims 2 - 4, 16, 17, 71 - 73, and 89 - 90 would not have been obvious over Clark et al. and WO '650. Withdrawal of the rejection of claims 2 - 14, 16, 17, 71 - 73, and 89 - 90 is therefore respectfully requested.

Rejection of Claims 18 - 35, 74 - 79, and 91 under 35 U.S.C. §103(a) over Clark et al. and WO 87/07650 (WO '650) in further view of Friedman

Claims 18 - 35, 74 - 79, and 91 were rejected under 35 U.S.C. §103(a) as being obvious over Clark et al. and WO '650 in further view of Friedman et al. (U.S. Patent No. 5,482,672). The Examiner referred to the previous final Office Action in which the Examiner stated that Clark et al. and WO '650 are applied as discussed above, and acknowledged that these references do not explicitly teach the particular extrusion conditions. The Examiner alleged that Friedman et al. teaches the extrusion of tantalum and niobium ingots, including the temperature of extrusion, the coating of the material and the removal of the coating and that the reference teaches that extrusion is advantageous to make bars, rods and tubes out of difficult to make metals such as tantalum and niobium. The Examiner took the position that it would have been obvious to use the particular processing conditions of Friedman et al. to provide rods, bars and tubes of tantalum or niobium. The Examiner further alleged that regarding recrystallization, Friedman et al. teaches the same process steps and that therefore, one would expect the products resulting from the process taught by the reference to be the same as the products from the claimed process. For the following reasons, this rejection is respectfully traversed.

Dependent claim 18 of the present invention relates to a process for making the extruded tantalum billet of claim 2 by extruding a tantalum ingot at a sufficient temperature and for a sufficient time to at least partially recrystallize the tantalum billet during extrusion. As noted above, the billet of claim 2 is an extruded tantalum billet wherein the tantalum has a purity of at least about 99.99% and that has the property of having a substantially uniform grain size after extrusion and before any further thermomechanical processing.

As discussed above, the combination of Clark et al. and WO '650 does not teach or

suggest an extruded ingot-derived tantalum billet wherein the extruded tantalum billet wherein the tantalum has a purity of at least about 99.99% and that has the property of having a substantially uniform grain size after extrusion and before any further thermomechanical processing.

Friedman et al. relates to a process for extruding a tantalum or niobium billet that has been formed by cold isostatically pressing powdered tantalum or niobium. Any reference to extruding solid metal in Friedman et al. is limited to the background section of the reference, and there is no teaching or suggestion in Friedman et al. that the particular processing steps and conditions that are described for extruding powdered tantalum or niobium are applicable to extruding an ingot-derived metal. An ingot-derived (i.e., melted) metal is quite different from a powder metallurgy product. One cannot substitute the two products. Accordingly, since Friedman et al. teaches its particular process steps and conditions only with respect to a powdered tantalum or niobium and not with respect to a solid ingot-derived billet, the Examiner's allegation that one would expect the products resulting from the process taught by the reference to be the same as the products from the claimed process is clearly erroneous.

At page 6 of the present Office Action, the Examiner noted that any part of Friedman et al., including the background, can be used in forming claim rejections and further alleged that since Friedman et al., at col. 1, lines 19-20 and lines 41-44 teaches the extrusion of tantalum ingot as an alternative to extruding a pressed tantalum powder, one skilled in the art would have recognized that extrusion of a tantalum ingot is a viable alternative to cold isostatic pressing of powdered tantalum. However, the issue is not whether Friedman et al. mentions that a tantalum ingot can be extruded, but whether the specific process steps that are described in Friedman et al. with respect to its powdered material have any relevance whatsoever to the steps that would be

carried out for extruding a tantalum ingot. The Examiner has completely failed to make any such connection. Certainly, the Examiner has not identified any particular column or line number of Friedman et al. that would provide such a teaching. Absent such a teaching, and in view of the law that a reference must be considered as a whole, this rejection cannot stand. Accordingly, it is clear that Friedman et al. does not teach or suggest specific processing steps of ingot derived tantalum billet.

In summary, the combination of Clark et al. and WO '650 does not teach or suggest an extruded ingot-derived tantalum billet that has the property of having a substantially uniform grain size after extrusion and before any further thermomechanical processing, and Friedman et al. does not teach or suggest the use of any extruding conditions with respect to an ingot-derived tantalum billet and therefore does not teach any processing conditions that would inherently achieve a substantially uniform grain size. Moreover, the combination of references does not teach or suggest any process for making the extruded tantalum billet by extruding a tantalum ingot at a sufficient temperature and for a sufficient time to at least partially recrystallized the tantalum billet during extrusion.

Moreover, since Clark et al. and Friedman et al. do not teach or suggest any end use for their tantalum products other than possibly structural or mechanical end uses, there is no motivation for using a tantalum material that has a purity of 99.99% in either the process of Clark et al. or Friedman et al. Moreover, because there is no disclosure in Clark et al. or Friedman et al. regarding any quality obtained by extrusion that would be relevant to a quality desired for a sputtering target, there is no motivation for subjecting the material of WO '650 to extrusion in the formation of the sputtering targets of WO '650, and therefore, no motivation for combining WO '650 with Clark et al. or Friedman et al.

Accordingly, claims 18 - 35, 74 - 79, and 91 would not have been obvious over Clark et al., WO '650, and Friedman et al. Withdrawal of the rejection of claims 18 - 35, 74 - 79, and 91 is therefore respectfully requested.

Rejection of Claim 15 under 35 U.S.C. §103(a) over Clark et al. and WO 87/07650 (WO '650) in further view of Rerat

Claim 15 was rejected under 35 U.S.C. §103(a) as being obvious over Clark et al. and WO '650 in further view of Rerat (U.S. Patent No. 4,149,876). The Examiner states that Clark et al. and WO '650 are applied as discussed above, and acknowledges that these references do not explicitly teach a capacitor can. The Examiner alleges that Rerat teaches that tantalum and niobium are desirable materials for forming capacitor components, including a capacitor can. The Examiner takes the position that it would have been obvious to use the material of Clark et al. to form capacitor parts because the formation of capacitor parts from tantalum and niobium is well-known, as shown in Rerat, wherein tantalum and niobium provide desirable electrical properties to the capacitors. For the following reasons, this rejection is respectfully traversed.

As discussed above, the combination of Clark et al. and WO '650 does not teach or suggest an extruded ingot-derived tantalum billet wherein the tantalum has a purity of at least about 99.99% and wherein the billet has the property of having a substantially uniform grain size after extrusion and before any further thermomechanical processing. Claim 15 includes these limitations with respect to the claimed capacitor can, since claim 15 depends from independent claim 2.

Rerat relates to the production of capacitor components from powdered tantalum. Rerat does not overcome the failure of Clark et al. and WO '650 to teach or suggest an extruded ingot-

derived tantalum billet that has the property of having a substantially uniform grain size after extrusion and before any further thermomechanical processing and therefore, the combination of Rerat with Clark et al. and WO '650 does not teach a capacitor can comprising such an extruded tantalum billet. Accordingly, the combination of Clark et al., WO '650, and Rerat does not teach or suggest the claimed invention. Withdrawal of the rejection of claim 15 is therefore respectfully requested.

Rejection of Claims 37 - 49, 51 - 70, 80 - 88, and 92 - 94 under 35 U.S.C. §103(a) over Clark et al. in view of Friedman et al. and in further view of JP '180

Claims 37 - 49, 51 - 70, 80 - 88, and 92 - 94 were rejected under 35 U.S.C. §103(a) as being obvious over Clark et al. in view of Friedman et al. and in further view of JP 362104180 A (JP '180). The Examiner referred to the rejection grounds given in paragraph 7 of the previous Office Action.

The Examiner alleged that although Clark et al.'s teaching is directed to tantalum, one of ordinary skill in the art would have found the claimed extruded niobium billet obvious on the alleged grounds that tantalum and niobium belong to the same group of metals in the Periodic Table and exhibit very similar properties. The Examiner takes the position that Clark et al. in view of Friedman et al. and further in view of JP '180 meet the amended limitations for the same reasons alleged with respect to the rejection of claims 2 - 4, 16 - 17, 71 - 73, and 89 - 90 over Clark et al., and WO '650. For the following reasons, this rejection is respectfully traversed.

Independent claim 37 of the present invention is directed to an extruded niobium billet that is ingot-derived, has a purity of at least about 99.99% and has the property of having a substantially uniform grain size after extrusion and before any further thermomechanical

processing.

In the first place, the Examiner has not shown that the teachings of Clark et al. regarding texture development in tantalum have any relevance to niobium.

Even if the teachings of Clark et al. could be carried over to niobium, the combined references do not teach or suggest the claimed invention for the reasons given above. In particular, Clark et al. does not teach or suggest an extruded tantalum billet that has the property of having a substantially uniform grain size after extrusion and before any further processing and therefore would not teach or suggest an extruded niobium billet having these properties.

Moreover, Friedman et al. does not overcome the deficiencies of Clark et al. On pages 8 - 10 of the previous Office Action and on page 6 of the present Office Action, the Examiner continues to commit the erroneous leap of logic that since Friedman, et al. mentions (in the background section) the extrusion of solid materials and since Friedman, et al. discusses specific process steps relating to extruding a powdered material, then the specific process steps relating to powdered materials must be equally applicable to extruding solid material. As discussed above, this conclusion is totally without basis and unsupported by anything in Friedman et al. Accordingly, Friedman et al. does not teach or suggest any processing conditions for extruding solid tantalum or niobium, and therefore does not teach any process that would inherently result in an ingot having a substantially uniform grain size after extrusion and before any further processing, as required by the present claims.

With respect to the Examiner's assertion that niobium is readily substituted for tantalum, the applicants respectfully disagree. If one simply looks at the tantalum industry as well as the niobium industry, one will readily see that those skilled in the art do not readily substitute niobium for tantalum. The Examiner is respectfully requested to provide technical support for

this allegation. It is clear, for instance, in the capacitor anode area that niobium is not a proper substitute for tantalum. Tantalum anodes clearly have significantly different capacitor properties from niobium capacitor anodes. Similarly, in the sputter target area, there is no recognition that niobium sputter targets can be substituted for tantalum sputter targets. If this was the case, niobium sputter targets would be readily used since niobium is a metal which is far less expensive than tantalum. Thus, clearly those skilled in the art do not readily substitute niobium for tantalum. It would appear that the Examiner's comments are mere speculation and personal opinion which is not the standard that should be used in determining patentability. Accordingly, the Examiner's position on this matter should be withdrawn.

Further, JP '180 relates to a high purity niobium film obtained by sputtering or by vapor deposition. The Examiner does not provide any reason or motivation for combining this reference with Clark et al. or Friedman et al. In particular, the Examiner has not provided any reason why a person would subject highly pure niobium to the processes of Clark et al. or Friedman et al. Moreover, as discussed above, even using 99.99% pure niobium in the process of Clark et al. or Friedman et al. would not result in the present invention, since these references do not teach or suggest an extruded niobium billet that is ingot-derived and has the property of having a substantially uniform grain size after extrusion and before any further thermomechanical processing, as required by independent claim 37. Accordingly, claims 37 - 49, 51 - 70, 80 - 88, and 92 - 94 are not obvious over Clark et al., Friedman et al. or JP '180. Withdrawal of the rejection of claims 37 - 49, 51 - 70, 80 - 88, and 92 - 94 is therefore respectfully requested.

Rejection of Claim 50 under 35 U.S.C. §103(a) over Clark et al. in view of Friedman et al., further in view of Rerat, and further in view of JP '180

Claim 50 was rejected under 35 U.S.C. §103(a) as being obvious over Clark et al. in view of Friedman et al. in further view of Rerat and in further view of JP '180. The Examiner stated that the rejection is maintained for the reasons provided in paragraphs 8 and 9 of the previous Office Action, in which the Examiner acknowledged that the references other than Rerat do not explicitly teach a capacitor can, but alleged that Rerat teaches that tantalum and niobium are desirable materials for forming capacitor components, including a capacitor can. The Examiner took the position that it would have been obvious to use the material of the other references to form capacitor parts because the formation of capacitor parts from tantalum and niobium is well-known, as shown in Rerat, wherein tantalum and niobium provide desirable electrical properties to the capacitors. For the following reasons, this rejection is respectfully traversed.

As discussed above, the combination of Clark et al., Friedman et al., and JP '180 does not teach or suggest an extruded ingot-derived niobium billet wherein the niobium has a purity of at least about 99.99% and wherein the billet has the property of having a substantially uniform grain size after extrusion and before any further thermomechanical processing. Claim 50 includes these limitations with respect to the claimed capacitor can, since claim 50 depends from independent claim 37.

Rerat relates to the production of capacitor components from powdered tantalum or niobium. Rerat does not teach or suggest an extruded ingot-derived niobium billet that has the property of having a substantially uniform grain size after extrusion and before any further thermomechanical processing and therefore does not teach or suggest a capacitor can comprising such an extruded niobium billet. Accordingly, the combination of Clark et al., Friedman et al., JP

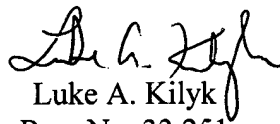
'180 and Rerat does not teach or suggest the claimed invention. Withdrawal of the rejection of claim 50 is respectfully requested.

CONCLUSION

In view of the foregoing remarks, Applicants respectfully request the reconsideration of this application and the timely allowance of the pending claims.

If there are any fees due in connection with the filing of this response, please charge the fees to Deposit Account No. 03-0060. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,


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